Appl. No.: 10/529108 Patent
Art Unit: 3734 1953233.00004

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## **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

1-82 (Canceled)

83. (Previously Presented) A stent assembly comprising:

an expandable stent and a delivery system;

said expandable stent having a length and having a plurality of longitudinally spaced, networked segments extending along a first end portion, a second end portion, and a central portion disposed between said first and second end portions and including a mid-point along the length, with said first end portion, said second end portion and said central portion defining a longitudinal axis along the length of said stent;

said first end portion comprising at least a first one of said longitudinally spaced, networked segments at a first terminal end of the stent having a first lattice structure when the stent is expanded to a radially expanded condition;

said second end portion comprising a second one of said longitudinally spaced, networked segments having a second lattice structure when the stent is expanded to the radially expanded condition; and

wherein said first and second lattice structures are different;

said central portion comprising at least a third one of said longitudinally spaced, networked segments having a third lattice structure when the stent is expanded to the radially expanded condition;

said third lattice structure is substantially similar to said second lattice structure;

said first lattice structure comprising a first circumferentially undulating pattern with a plurality of first strut segments wherein a circumferential array of M first end crowns is formed between adjacent first strut segments with said first undulating pattern having a first amplitude between adjacent first end crowns and a first inter-crown distance between facing sides of adjacent first end crowns:

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said second lattice structure comprising a second circumferentially undulating pattern with a plurality of second strut segments wherein a circumferential array of N second end crowns is formed between adjacent second strut segments with said second undulating pattern having a second amplitude between adjacent second end crowns and a second inter-crown distance between facing sides of adjacent second end crowns;

N is greater than M;

said first amplitude is greater than the second amplitude;

said first inter-crown distance is greater than the second inter-crown distance;

said delivery system having a distal end portion and a proximal end portion;

wherein said expandable stent is located along the distal end portion of the delivery system in a radially collapsed condition and is expandable by the delivery system from the radially collapsed condition to the radially expanded condition; and

wherein the radially expanded condition comprises a substantially tubular structure along the length.

- 84. 87.(Cancelled)
- 88. (Previously Presented) The stent assembly of claim 83, wherein N is about twice M.
- 89. (Previously Presented) The stent assembly of claim 83 wherein: said first amplitude is about twice said second amplitude.
- 90. (Previously Presented) The stent assembly of claim 83, wherein:

said first lattice structure comprises a circumferentially undulating pattern with a plurality of strut segments wherein said circumferential array of M first end crowns is formed between adjacent converging strut segments; and

at least one of said first end crowns comprises a curvilinear bulb-shaped member extending longitudinally and circumferentially from respective ends of two converging strut segments.

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91. (Previously Presented) The stent assembly of claim 90 wherein each of said first end crowns comprises a curvilinear bulb-shaped member extending longitudinally and

circumferentially from respective ends of two adjacent converging strut segments.

92. (Previously Presented) The stent assembly of claim 83, wherein in the radially

expanded condition:

said first inter-crown distance is about twice said second inter-crown distance.

93. (Previously Presented) The stent assembly of claim 83, wherein said stent assembly is adapted to be delivered by the delivery system to a location in a lumen, and

further comprising:

a bioactive agent coupled to the stent assembly;

wherein said first end portion is adapted to deliver a lower density therapeutic

dose of the bioactive agent to tissue at said location of said lumen than said second end

portion and said central portion.

94. (Previously Presented) A stent assembly for implanting at least two stents in

overlapping configuration at a location within a lumen, comprising:

first and second delivery systems each having a proximal end and a distal end

that is adapted to be positioned at a location within a lumen;

first and second substantially similar stents, each with a length extending

between first and second opposite ends, and having a plurality of longitudinally spaced,

networked segments extending between the first and second ends including along a

first end portion that terminates in the first end, a second end portion that terminates in

the second end opposite the first end, and a central portion disposed between said first

and second end portions and including a mid-point of the length;

said first end portion, said second end portion and said central portion defining a

longitudinal axis along the length of each of said stents;

each of said first end portions having a first lattice structure that is different than a

second lattice structure along the corresponding second end portion and that is also

different than a third lattice structure along the corresponding central portion;

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said first stent being mounted on the distal end of said first delivery system with said first end portion located proximally of said second end portion;

said second stent being mounted on the distal end of said second delivery system with said first end portion located distally of said second end portion;

each of said first and second stents being mounted on the respective delivery system in a radially collapsed condition for delivery to said location;

wherein at said location each of the said first and second stents is adjustable by the respectively mounted delivery system from the respective radially collapsed condition to a radially expanded condition; and

wherein the first and second delivery systems are configured to deliver and implant the first and second stents at the location in series over a common placed guidewire in the lumen, with the respective stents in opposite respective longitudinal orientations and in an overlapping configuration with the respective first end portions overlapped at an overlap region and the respective second end portions extending away in opposite relative longitudinal orientation from the overlap region, and such that said overlapping configuration comprises a substantially tubular structure along a length extending between the second opposite ends of the respectively overlapped stents.

95. (Previously Presented) The stent assembly of claim 94 wherein:

said first lattice structure comprises a first circumferentially undulating pattern with a plurality of first strut segments wherein said circumferential array of M first end crowns is formed between adjacent first strut segments with said first undulating pattern having a first amplitude;

said second lattice structure comprises a second circumferentially undulating pattern with a plurality of second strut segments wherein said circumferential array of N second end crowns is formed between adjacent second strut segments with said second undulating pattern having a second amplitude; and

wherein said first and second amplitudes are different.

96. (Previously Presented) The stent assembly of claim 94 further comprising: a bioactive agent in association with said first and said second stent;

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said respective first end portions are adapted to elute said bioactive agent according to a first elution profile;

said respective second end portions are adapted to elute said bioactive agent according to a second elution profile;

said respective central portions are adapted to elute said bioactive agent according to a third elution profile; and

wherein said first elution profile is substantially less than either the second or third elution profile.

## 97. (Cancelled)

98. (Previously Presented) The stent assembly of claim 94, further comprising:

a bioactive agent in association with said first and said second stents such that said bioactive agent is eluted with an elution profile at the overlap region that is substantially less than double an elution profile along the respective second and central portions of the first and second stents.

## 99. – 104. (Cancelled)

105. (Previously Presented) A stent assembly comprising:

a stent having a length between first and second opposite ends and having a first end portion that terminates in the first end, a second end portion that terminates in the second end, and a central portion disposed between said first and second end portions and that includes a mid-point between the two opposite ends, and also with said first end portion, said second end portion, and said central portion defining a longitudinal axis along the length of said stent;

said stent being made of a non-superelastic, non-shape memory metal alloy;

said stent having a radially collapsed condition with a collapsed diameter, for delivery to a location within a lumen, said collapsed diameter being plastically deformed from an initial condition having an initial diameter;

wherein at said location said stent is expanded by the application of force from said collapsed diameter to a radially expanded diameter that is greater than the collapsed diameter; and 

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wherein said initial diameter has a value that is closer to said expanded diameter than to said collapsed diameter.